Nokia Customer Care
NPL-4/5 Series Transceivers

General Information

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NPL-4/5 Product Selection

The NPL-4/5 is a triple band transceiver unit designed for the GSM 850/1800/1900 (NPL-4, US) and EGSM900 , GSM1800/1900 (NPL-5, EU) networks . It is both GSM850/ EGSM900 phase 2 power class 4 transceiver (2W) and GSM1800 / GSM1900 power class 1 (1W) transceiver.

NPL-4/5 Product and Modules

Name	Type code	Material code/ module type	Module code
Basic transceiver (US Variant)	NPL-4	0507659	
Basic transceiver (EU Variant)	NPL-5	0511274	
Radio module	NPL-4		
Radio module	NPL-5		
UI board	NPL-4/5		
Mechanics module	NPL-4		0262797
Mechanics module	NPL-5		0263083

Figure 1: NPL-4/5 transceiver

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Accessories List

Batteries	Product code:
Battery BL-5B 760mAH Li-ion	0670455
Chargers	**Product code:**
Standard Charger ACP-7E (EUR) 230 Vac (Made in country)	0675144
Standard Charger ACP-7E (EUR) 230 Vac (Made by 'manufacturer')	0675171
Standard Travel Charger ACP-7U (US) 120 Vac (Made in country)	0675143
Standard Travel Charger ACP-7U (US)120 Vac (Made by 'manufacturer')	0675172
Standard Charger ACP-7X (UK) 230 Vac (Made in country)	0675145
Standard Charger ACP-7X (UK) 230 Vac (Made by 'manufacturer')	0675173
Standard Charger ACP-7H (Hong Kong) 200 Vac	0675146
Standard Charger ACP-7C (China) 220 Vac	0675212
Standard Charger ACP-7C (Philippines) 220 Vac	0675158
Standard Charger ACP-7A (Australia) 240 Vac	0675148
Standard Travel Charger ACP-7AR (Argentina) 220 Vac	0675244
Travel Charger ACP-8E (EUR)	0675195
Rapid Travel Charger ACP-8U (US) 90-264 Vac	0675196
Rapid Travel Charger ACP-8U (US) 90-264 Vac (Made by 'manuf.')	0675269
Travel Charger ACP-8X (UK) 90-264 Vac	0675197
Travel Charger ACP-8J	0675198
Travel Charger ACP-8K	0675199
Fast & Light Charger ACP-8A (Australia) 90-264 Vac	0675214
Fast & Light Charger ACP-8C (China) 90-264 Vac	0675211
Travel Charger ACP-8UB	0675236
Travel Charger ACP-8G	0675237
RapidTravel Charger ACP-8AR (Argentina)	0675248
Travel Charger ACP-12E (Eur)	0675294
Travel Charger ACP-12X	0675296
Travel Charger ACP-12U	0675303
Travel Charger ACP-12UB	0675293
Travel Charger ACP-12G	0675295
Travel Charger ACP-12C	0675297
Travel Charger ACP-12A	0675300

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Travel Charger ACP-12AR	0675298
Retractable Charger AC-1E	0675349
Portable and Office Accessories	**Product code:**
Activity Headset HS-8	0694170
Fashion Stereo Headset HS-3	0694156
Boom Headset HDB-4	0694094
Stereo Headset HDS-3	0694093
Basic Headset HS-5	0694121
Inductive Loopset LPS-4	0630443
Connectivity Adapter Cable DKU-5	0730235
Carrying Strap CP-12 (Eur/Afr inbox only)	0720391
Activity Handsfree HF-2	0700097
Music Stand DT-3	0694203
Wireless Audio Adapter AD-5B	0694149
Xpress -On shells:	
Blue SKR-337	0262919
Red SKR-338	0262920
Orange SKR-339	0262921
Dark Grey SKR-343	0262993
Green SKR-344	0262994
Dark Green SKR-340	0262922
Mobile Accessories	**Product code:**
Headrest Handsfree BHF-3	0694158
Mobile Charger LCH-9	0675120
Mobile Charger LCH-12	0675328
Other Accessories	**Product code:**
Fitness Monitor LS-2	xxxxxxx
Image Viewer SU-5	0710116
Image Album PD-1	xxxxxxx
Image Frame SU-4	0710004
Image Frame SU-7	0710011

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Technical Specifications

General specifications of transceiver NPL-4/5

Unit	Dimensions (mm) (W x H x D)	Weight (g)	Volume (cm^3)
Transceiver with BL-4C 720mAh Li-Ion battery pack	103 x 43 x 20	<93	86

Parameter	Unit and value
Cellular System	GSM850/900, GSM1800 and GSM1900
Modulation schemes	GMSK, 8-PSK
RX Frequency Band	GSM850: 824...849 MHz GSM900: 925 - 960 MHz GSM1800: 1805 - 1880 MHz GSM1900: 1930 - 1990 MHz
TX Frequency Band	GSM850: 869...894 MHz GSM900: 880 - 915 MHz GSM1800: 1710 - 1785 MHz GSM1900: 1850 - 1910 MHz
Output Power GMSK	GSM850: +5...+33 dBm / 3.2 mW... 2 W GSM900: +5...+33 dBm / 3.2 mW... 2 W GSM1800: +0...+30 dBm / 1.0 mW... 1 W GSM1900: +0...+30 dBm / 1.0 mW... 1 W
Output Power 8-PSK	GSM850: +5...+27 dBm / 3.2 mW... 0.5 W GSM900: +5...+27 dBm / 3.2 mW... 0.5 W GSM1800: +0...+26 dBm / 1.0 mW... 0.4 W GSM1900: +0...+26 dBm / 1.0 mW... 0.4 W
Duplex Spacing	GSM850: 45MHz GSM900: 45MHz GSM1800: 95MHz GSM1900:: 80MHz
Number of RF Channels	GSM850: 124 GSM900: 174 GSM1800: 374 GSM1900: 300
Channel Spacing	200 kHz (each band)
Number of TX Power Levels GMSK	GSM850: 15 GSM900 : 15 GSM1800: 16 GSM1900: 16

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Number of TX Power Levels GMSK	GSM850: 12 GSM900 : 12 GSM1800: 14 GSM1900: 14
Sensitivity, static channel (+25°C)	EGSM: -102dBm GSM900: -102dBm GSM1800: -102dBm GSM1900: -102dBm
Frequency Error, static channel	< 0.1 ppm
RMS Phase Error	< 5.0°
Peak Phase Error	< 20.0°

Battery endurance

Parameter	Hours	Note
talk time (hours)	up to 2-5	
standby (hours)	up to 150-300	Depends on network parameters
standby time: radio + HDS-3	up to 20 hours	
standby time: radio + IHF	up to 8 hours	

Environmental conditions

Table 1: Allowed Ambient Temperatures

Environmental condition	Ambient temperature	Notes
Normal operation	-10 °C ... +55 °C	Specifications fulfilled
Reduced performance	+55 °C ... +65 °C	Operational only for short periods
Intermittent operation	-20 °C ... -10 °C and +65 °C ... +85 °C	Operation not guaranteed but an attempt to operate will not damage the phone
No operation	-40 °C ... -20 °C	Operation not possible but an attempt to operate will not damage the phone
No operation or storage	< -40 °C and > +85 °C	No storage; an operation attempt may cause permanent damage
Charging allowed	-25 °C ... +60 °C	
Long term storage conditions	0 °C ... +40 °C	

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Transceiver features

Hardware characteristics

- EDGE 850/1800/1900 and EDGE 900/1800/1900
- Codecs AMR, EFR, FR, HR
- Passive matrix color display (128 x 128 pixels, 4096k colors).
- 4-way navigation key, 3 soft keys , volume keys, PTT-key, power on/off on top
- Internal antenna.
- User changeable X'press On Shells
- Ringing volume: 105 dB from 5cm distance
- Integrated Handsfree
- Integrated Camera
- FM Radio
- Charger plug
- Headset connector Pop-port ™
- Flashlight

UI features

- Push to talk
- MDO Persona Client
- Wireless Village
- Compass
- FCI (Functional Cover Interface)

Data accessories

- Circuit switched (CS) data features
  - 9600, 14400 bps, non-transparent data
  - 43200 bps with HSCSD, non-transparent data

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- HSCSD Multislot class 6 (max 2+2, 3+1 (rx time slots + tx time slots))

- Packet switched (PS) data features
  - Class B Mobile
  - GPRS Multislot class 10 (max 4+1, 3+2 (rx time slots + tx time slots))
  - EDGE Multislot class 6 (max 2+2, 3+1 (rx time slots + tx time slots))

- Connectivity features
  - IR Link (IrDA compliant IrComm interface) up to 1.152 Mbit/s
    - IR link between two phones
    - PC Dial-up connectivity
    - PC Suite connectivity
  - DKU-5 USB cable (connectivity via Pop-Port <tm>) up to 230.4 kbit/s
    - PC Dial-up connectivity
    - PC Suite connectivity

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Electrical characteristics

Table 2: Absolute Maximum Ratings

Parameter	Min.	Typical	Max.	Unit
Battery Voltage, Idle	-0.3		5.5	V
Battery Voltage, Call	-0.3		4.8	V
Charger Input Voltage	-0.3		16	V
Charging Current			1A	mA

Table 3: Supply Voltages

Parameter	Min.	Typical	Max.	Unit / Notes
Battery Voltage	3.1	3.7	4.2	V / SW cut-off 3.1 V

Table 4: Current Consumption

Condition	Min.	Typical	Max.	Unit
Call (MoU) GSM 850 EGSM900 GSM1800 GSM1900		 290 221 210		mA
Idle (MoU)		3-4		mA
Power off			80	µA

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